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ROBERTS, MLOTKOWSKI & HOBBS
P. O. BOX 10064
MCLEAN, VA 22102-8064

EXAMINER

WEST, JEFFREY R

ART UNIT PAPER NUMBER

2857

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,095

Applicant(s)

KVISGAARD ET AL.

Examiner

Jeffrey R. West

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-41 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-16 and 18-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08/809,492.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Election/Restrictions

2. In response to Applicant's amendment and argument that the restriction between groups 2 and 3 should be withdrawn, claims 40 and 41 have been reentered and are being considered in the instant Office Action.

Claim Objections

3. Claims 15, 18-21, 23, 37, 38, 40, and 41 are objected to because of the following informalities:

In claim 15, line 3, to avoid confusion, "establishing in a computer database functions" should be ---establishing, in a computer database, functions---

In claim 15, line 6, to avoid problems of antecedent basis, "said database" should be ---said computer database---.

In claim 18, line 2, to avoid problems of antecedent basis, "the number" should be ---a number---.

In claim 19, line 2, to avoid problems of antecedent basis, "the existence" should be ---an existence---.

In claim 20, line 2, to avoid problems of antecedent basis, "the probability" should be ---a probability---.

In claim 21, line 2, to avoid problems of antecedent basis, "the probability" should be ---a probability---.

In claim 23, line 3, to avoid problems of antecedent basis, "said effecting" should be ---said controlling---.

In claim 23, lines 4-5, to avoid problems of antecedent basis, "the factors calculated for each batch" should be ---the factor calculated for each incomplete batch---.

In claim 37, line 3, to avoid problems of antecedent basis, "allocation effecting" should be ---allocation controlling---.

In claim 37, line 4, to avoid problems of antecedent basis, "the weighing station" should be ---the weigh station---.

In claim 38, line 4, to avoid problems of antecedent basis, "said system" should be ---said batching system---.

In claim 40, line 8, to avoid problems of antecedent basis, "the probabilities" should be ---probabilities---.

In claim 41, line 8, to avoid confusion, "articles, based upon said factual weight distribution, for" should be ---articles and, based upon said factual weight distribution, for---.

In claim 41, line 9, to avoid problems of antecedent basis, "the probabilities" should be ---probabilities---.

In claim 41, line 14, to avoid problems of antecedent basis, "said control unit" should be ---said computer control unit---.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 11-16 and 18-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 is considered to be vague and indefinite because it recites, "controlling allocation of the articles to make up the batches". Claim 11, however, refers to "[a] method of accumulating articles having different weights into plural batches" and "producing said completed batches". Therefore, it is unclear to one having ordinary skill in the art as to whether "the batches" refers to the "plural batches" or the "completed batches".

Claim 12 is considered to be vague and indefinite because it recites, "allocation of an article to said batch," "allocation of at least one succeeding article to each batch", and "the incomplete batch". Claim 12, and parent claim 11, refer to "plural batches", "completed batches", and "a plurality of incomplete batches". These references do not particularly point out a specific batch, but rather provide a plurality of different batches and therefore it is unclear to one having ordinary skill in the art as to what specific batch of the plurality of batches "said batch" and "the incomplete batch" refer.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, because it attempts to further limit parent claim 11 by further limiting "said step of controlling allocation of an article to a respective batch" by specifying its "dependence upon a comparison of the factor calculated for each incomplete batch." It is first noted that the step of controlling allocation in claim 11 is for controlling allocation of "the articles" and not "an article." Second, it is unclear to one having ordinary skill in the art how this limitation further limits parent claim 11 since claim 11 controls allocation based on a calculated preference and claim 12 controls allocation based on a probability factor wherein the probability factor is calculated without any relation to the calculated preference.

Claims 13-15 are considered to be vague and indefinite because they attempt to further limit "said calculating step" of parent claim 11. Claim 11, however, does not define any "calculating step" but instead mentions "a computer...to calculate a preference...by statistical probability calculations..." Therefore, it is unclear to one

having ordinary skill in the art as to what specific "calculating step" claims 13-15 are attempting to further limit.

Claim 13 is considered to be vague and indefinite because it refers to "the respective incomplete batch" while parent claim 11 contains no mention of any "incomplete batch". Therefore, it is unclear to one having ordinary skill in the art as to what specific batch "the respective incomplete batch" refers.

Claim 13 is also rejected under 35 U.S.C. 112, second paragraph, because it refers to "the article to be allocated". Parent claim 11, however, specifically provides controlling allocation of "the articles to make up the batches". Therefore, since parent claim 11 defines a plurality of articles to make up the batches, it is unclear to one having ordinary skill in the art as to which specific article "the article" refers to in claim 13. Similarly, claim 15 is considered to be vague and indefinite for its attempt to further limit "the article that is to be allocated" with further confusion due to claim 15 also presenting "at least one succeeding article".

Claim 14 is also rejected under 35 U.S.C. 112, second paragraph, because it refers to "the completed batch". Parent claim 11, however, specifically defines "a plurality of completed batches". Therefore, since parent claim 11 defines a plurality of completed batches, it is unclear to one having ordinary skill in the art as to which specific batch "the completed batch" refers to in claim 14.

Claim 22 is considered to be vague and indefinite because it recites "wherein said probability factor is given a weight in allocation of articles." In this limitation, it is assumed that the "weight" is a mathematical weight in order to be able to give such

a weight to a probability factor. However, it is unclear to one having ordinary skill in the art as how to give a mathematical weight "in allocation of articles". Claim 24 is similarly rejected as being vague and indefinite for its recitation of "wherein said probability factor is given a greater weight in allocation of articles for completion of batches than prior thereto".

Claim 26 is rejected under 35 U.S.C. 112, second paragraph, because it attempts to further limit "said allocation in accordance with the historical frequency distribution" while parent claim 11 recites "controlling allocation...in accordance with the calculated preference". Therefore, it is unclear to one having ordinary skill in the art as to what allocation claim 26 is attempting to refer.

Claim 33 is rejected under 35 U.S.C. 112, second paragraph, because it attempts to further limit "the allocation of plural articles of the same type" while parent claims 30 and 31 describe allocation of "different types of articles". Therefore, it is unclear to one having ordinary skill in the art as to what allocation claim 33 is attempting to refer.

Claim 35 is considered to be vague and indefinite because it refers to "the calculated probability factor for the respective article" while parent claim 12 calculates "a probability factor for each of a plurality of incomplete batches" and does not calculate a probability factor for any articles. Therefore, it is unclear to one having ordinary skill in the art as to what claim 35 is attempting to further limit.

Claim 38 is considered to be vague and indefinite because it recites, "means for allocating the articles to make up the batches in accordance with the calculated

preference". Claim 38, however, already defines "a computer...to control allocation of the articles to make up the batches in accordance with said historical frequency distribution of article weights". Therefore, it is unclear to one having ordinary skill in the art as to whether the "means for allocating the articles to make up the batches in accordance with the calculated preference" is distinct from or the same as the "computer...to control allocation of the articles to make up the batches in accordance with said historical frequency distribution of article weights" or if the allocation is performed twice.

Claim 40 is rejected under 35 U.S.C. 112, second paragraph, because it recites, "based upon said factual weight distribution, statistically calculating the probabilities of each new article being successfully added to each of the portioning bins". Claim 40, however, indicates that the factual weight distribution is based on "individually weighing each article in a stream of articles". It is therefore unclear to one having ordinary skill in the art as to whether these individually weighed articles should be designated as "new" or if the probabilities are calculated based on new articles other than those individually weighed.

Claim 41 is rejected under 35 U.S.C. 112, second paragraph, because it recites, "based upon said factual weight distribution, for statistically calculating the probabilities of each new article being successfully added to each of the portioning bins". Claim 41, however, indicates that the factual weight distribution is based on "individually weighing each article in a stream of articles". It is therefore unclear to one having ordinary skill in the art as to whether these individually weighed articles

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should be designated as "new" or if the probabilities are calculated based on new articles other than those individually weighed.

Claims 16, 18-21, 23, 24, 25, 27-32, 34, 36, 37, and 39 are rejected under 35 U.S.C. 112, second paragraph, because they incorporate the lack of clarity present in their respective parent claims

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 11-16, 18-26, 34, and 38, as may best be understood, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,313,507 to Hays.

With respect to claim 11, Hays discloses a method of accumulating articles having different weights (column 3, lines 7-9) into plural batches (column 3, lines 22-25) wherein each of a plurality of completed batches comprises a plurality of articles and has a sum weight within a predetermined weight range (column 4, lines 41-51), said method comprising the steps of establishing a historical frequency distribution of article weights (column 3, lines 38-44), and using a computer to keep track of the articles according to the weight of each article (column 2, line 62 to column 3, line 6) and to calculate a preference for use of each article in producing said completed batches (column 3, line 64 to column 4, line 2 and column 5, lines 1-13) by statistical

probability calculations based upon said historical frequency distribution (column 3, lines 38-44, column 4, lines 8-15 and column 6, lines 18-36) and controlling allocation of the articles to make up the batches in accordance with the calculated preference (column 5, lines 1-13).

With respect to claim 12, Hays discloses that said statistical probability calculations comprise calculating a probability factor for each of a plurality of incomplete batches which is related to a completion probability that, by allocation of an article to said batch, the batch can be completed by allocation of at least one succeeding article to said batch (column 4, lines 8-15 and column 6, lines 18-36), said probability factor being based upon said historical frequency distribution (column 3, lines 37-44 and column 6, lines 18-22), upon a sum weight of articles in the incomplete batch (column 6, lines 8-11) and upon a weight of the article to be allocated (column 6, lines 16-18); and wherein said step of controlling allocation of an article to a respective batch is performed in dependence upon a comparison of the factor calculated for each incomplete batch (column 4, lines 8-15 and column 6, lines 18-36).

With respect to claim 13, Hays discloses that said calculating step comprises the further steps of deriving a completion probability from the predetermined weight range and from a current sum weight of articles in the respective incomplete batch (column 5, line 67 to column 6, line 18) and determining how said completion probability would change if the article to be allocated were to be allocated to that batch (column 5, lines 14-64 and column 6, lines 18-36).

With respect to claim 14, Hays discloses that said calculating step comprises the further steps of deriving a difference between the predetermined weight range for the completed batch and a current sum weight of the respective batch (column 6, lines 8-22), deriving from said historical frequency distribution, various combinations of article weights which would sum to said difference (column 6, lines 16-36), and deriving a completion probability for each of the various combinations from the historical frequency distribution (column 5, lines 14-64 and column 6, lines 18-36).

With respect to claim 15, Hays discloses that said calculating step comprises the further steps of establishing in a computer database functions, inherently as the computer requires such a memory/database of functions to perform the disclosed processing (column 5, lines 4-11 and column 7, lines 27-28), indicating completion probabilities of completing an incomplete batch by at least one succeeding article (column 5, lines 14-64 and column 6, lines 18-36) having a weight in accordance with the historical frequency distribution (column 6, lines 16-36), and inherently accessing said database, when an allocation decision is to be made, to derive probability values relating to weight required for completing an incomplete batch if the article that is to be allocated were allocated to that batch (column 3, lines 37-44, column 4, lines 8-15 and column 6, lines 18-36).

With respect to claim 16, Hays discloses that said step of establishing a historical frequency distribution is performed in a manner taking into account variations in weight distribution of the articles to be batched (column 3, lines 38-44).

With respect to claim 18, Hays discloses that said allocation of the articles is performed in additional dependence upon the number of articles to be allocated to the respective batches (column 4, lines 60-64 and column 11, lines 1-8).

With respect to claim 19, Hays discloses that said allocation of the article is performed in additional dependence upon the existence of any partly completed batch which repeatedly fails to have an article allocated thereto (i.e. an available article cannot be found to complete the batch) (column 6, lines 22-36).

With respect to claim 20, Hays discloses that the probability factor calculation step comprises the step of modifying the calculation to increase the probability calculated for any partly completed batch which repeatedly fails to have an article allocated thereto (i.e. modifying the probability calculation by expanding the search to a slightly greater weight) (column 6, lines 22-36).

With respect to claim 21, Hays discloses that said modifying step is performed so as to increase the probability calculated by a modification factor which increases as a function of time (i.e. factor added to slightly increase the target weight that is increased over time) (column 6, lines 22-36).

With respect to claim 22, Hays discloses that said probability factor is given a weight in allocation of articles which is different for different degrees of completion of the batches (i.e. probability factor is given a weight that corresponds to the remaining need of the batches to be completed) (column 3, lines 38-44, column 4, lines 8-15 and column 6, lines 18-36).

With respect to claim 23, Hays discloses initially allocating articles to batches indiscriminately until partly completed batches reach one of a predetermined sum weight and a predetermined number of articles, after which said effecting allocation of an article to a respective batch in dependence upon a comparison of the factors calculated for each batch is commenced (column 4, lines 52-64 and column 6, lines 5-14).

With respect to claim 24, Hays discloses that said probability factor is given a greater weight in allocation of articles for completion of batches than prior thereto (i.e. probability factor is given a weight that corresponds to the remaining need of the batches to be completed which is greater than prior batches as needed) (column 3, lines 38-44, column 4, lines 8-15 and column 6, lines 18-36).

With respect to claim 25, Hays discloses the further steps of monitoring batch weights of completed batches, and adjusting allocation of articles to batches in dependence on the monitored batch weights so as to insure that average batch weight is at least a predetermined amount (i.e. final batch weights averaging at least a pound but no more than one-fiftieth of a pound overweight) (column 7, lines 3-18 and column 11, lines 1-8).

With respect to claim 26, Hays discloses that said allocation in accordance with the historical frequency distribution is performed using only a portion of said historical frequency distribution (i.e. allocation in accordance with a historical frequency distribution for a specific weight or narrow range of weights) (column 3, lines 38-44).

With respect to claim 34, Hays disclose that the allocating of articles is effected so that said predetermined weight range is subject to a predetermined target weight distribution (column 7, lines 3-18 and column 11, lines 1-8).

With respect to claim 38, Hays discloses a batching system for accumulating articles having different weights (column 3, lines 7-9) into plural batches (column 3, lines 22-25), wherein each of a plurality of completed batches comprises a plurality of articles and has a sum weight within a predetermined weight range (column 4, lines 41-51), said system comprising means for establishing a historical frequency distribution of article weights (column 3, lines 38-44), a computer to keep track of the articles according to the weight of each article (column 2, line 62 to column 3, line 6 and column 7, lines 27-28) and to calculate a preference for each article (column 3, line 64 to column 4, line 2 and column 5, lines 1-13) by statistical probability calculations based upon said historical frequency distribution to control allocation of the articles to make up the batches in accordance with said historical frequency distribution of article weights (column 3, lines 38-44, column 4, lines 8-15 and column 6, lines 18-36), and means for allocating the articles to make up the batches in accordance with the calculated preference (column 5, lines 1-13).

Hays discloses that said assessing of article weights is performed using a weighing device (column 11, lines 19-21).

Hays discloses that said article weights are assessed at a weigh station located upstream of all of the batching stations (column 11, lines 11-26) and allocation effecting is based on probability factor comparisons performed prior to departure of

the articles from the weighing station (column 3, line 45 to column 4, line 2 and column 6, lines 16-36).

Hays further discloses a method of accumulating articles having different weights (column 3, lines 7-9) into plural portions (column 3, lines 22-25), wherein each completed portion comprises a plurality of articles and has a target weight within a predetermined weight range (column 4, lines 41-51), said method comprising the steps of individually weighing each article in a stream of articles (column 4, lines 52-57), keeping track of the weights of a plurality of weighed articles (column 2, line 62 to column 3, line 6 and column 7, lines 27-28) and using said weights for determining a factual weight distribution of the articles in said stream of articles (column 3, lines 38-44), based upon said factual weight distribution, statistically calculating the probabilities of each new article being successfully added to the bin so as to produce a portion of weight within a predetermined weight range together with subsequent articles (column 3, lines 38-44, column 4, lines 8-15 and column 6, lines 18-36), and based upon the calculated probabilities, performing a suitability analysis for determining which delivery of each new article is best suited for producing such a portion (column 3, line 64 to column 4, line 2 and column 5, lines 1-13), and diverting each new article from said stream of articles into a portioning bin based upon said suitability analysis (column 5, lines 1-13).

Hays also discloses a system for accumulating articles having different weights (column 3, lines 7-9) into plural portions (column 3, lines 22-25), wherein each completed portion comprises a plurality of articles and has a target weight within a

predetermined weight range (column 4, lines 41-51), said system comprising a weigher for individually weighing each article in a stream of articles (column 4, lines 52-57), a computer control unit having means for keeping track of the weights of a plurality of weighed articles (column 2, line 62 to column 3, line 6 and column 7, lines 27-28) and for using said weights for determining a factual weight distribution of the articles in said stream of articles (column 3, lines 38-44), based upon said factual weight distribution, for statistically calculating the probabilities of each new article being successfully added to the bin so as to produce a portion of weight within a predetermined weight range together with subsequent articles (column 3, lines 38-44, column 4, lines 8-15 and column 6, lines 18-36), and based upon the calculated probabilities, for performing a suitability analysis for determining which delivery of each new article is best suited for producing such a portion (column 3, line 64 to column 4, line 2 and column 5, lines 1-13), and article diverting means coupled to said control unit for diverting each new article from said stream into a portioning bin based upon said suitability analysis (column 5, lines 1-13).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 27, 28, 35-37, and 39-41, as may best be understood, are rejected

under 35 U.S.C. 103(a) as being unpatentable over Hays in view of GB Patent Application Publication No. 2 116 732 to Dalgaard.

As noted above, the invention of Hays teaches many of the features of the claimed invention and while the invention of Hays does teach means for serially supplying articles to a weighing station at which the weights of the articles are assessed (Hays; column 4, lines 52-57) and a computer operable to control operation of a selector for controlling said allocation of articles (Hays; column 11, lines 22-26) in dependence on the probability factor (Hays; column 3, lines 38-44, column 4, lines 8-15 and column 6, lines 18-36), Hays does not explicitly include contemporaneous batching of the articles into a plurality of batches.

Dalgaard teaches a method of accumulating articles having different weights into plural portions within a plurality of portioning bins (page 2, lines 11-18) wherein each complete batch comprises a plurality of articles and has a sum weight within a predetermined weight range (page 2, lines 55-58), said method comprising the steps of establishing a historical frequency distribution of article weights (page 1, lines 61-79) and using a computer to keep track of the articles according to the weight of each article (page 1, lines 36-37) to control allocation of the articles to make up the batches in accordance with said historical frequency distribution of article weights (page 1, lines 109-119).

Dalgaard teaches that allocation of articles to batches is performed contemporaneously in accordance with at least two different sets of batching criteria so as to produce batches having different predetermined weight ranges (i.e. at the

same time, batched according to weight and batched by station that received an article the latest) (page 1, lines 89-102) wherein the different sets of batching criteria are prioritized differentially (i.e. weight prioritized by closest to the average weight and station prioritized by time/latest station to receive an article) (page 1, lines 89-102).

Dalgaard also teaches means for serially supplying articles to a weighing station at which the weights of the articles are assessed (page 1, line 35), means for serially moving the articles from the weighing station (page 1, lines 38-43) into a distribution system have a plurality of batching stations and a selector that is operable to move each article into a selected batching station (page 2, lines 11-25), wherein said computer is operable to control operation of the selector for controlling said allocation of articles (page 2, lines 8-10 and 20-21 and Figure 1).

It would have been obvious to one having ordinary skill in the art to modify the invention of Hays to explicitly include contemporaneous batching of the articles into a plurality of batches, as taught by Dalgaard, because the invention of Hays is concerned with increasing the speed of batching (Hays; column 7, lines 56-65) and, as suggested by Dalgaard, the combination would have improved the method of Hays by allowing the creation of simultaneous batches thereby increasing the speed and efficiency of the batching of Hays (page 1, lines 57-60 and 98-102)

10. Claim 29, as may best be understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Hays in view of U.S. Patent No. 4,951,825 to Hawkins et al.

As noted above, the invention of Hays teaches many of the features of the claimed invention and while the invention of Hays does teach means for forming batches of items such as fruits and vegetables (Hays; column 1, lines 11-15), Hays does not explicitly include means for allocating different kinds of articles into batches contemporaneously with each batch comprising only one kind of article.

Hawkins teaches an apparatus for classifying particulate material, specifically, food by color, shape or any other attribute (column 9, lines 6-12) comprising allocating different kinds of the particulate material into batches contemporaneously with each batch comprising only one kind of article (column 2, lines 50-68 and column 5, lines 14-30).

It would have been obvious to one having ordinary skill in the art to modify the invention of Hays to explicitly include means for allocating different kinds of articles into batches contemporaneously with each batch comprising only one kind of article, as taught by Hawkins, because the invention of Hays is drawn to batching bulk harvest foods (Hays; column 3, lines 7-25) and Hawkins suggests that the combination would have improved the applicability and efficiency of Hays by providing means for sorting different types of foods thereby providing an automated fruit/vegetable classifying system eliminating the need of the operator of Hays to manually separate the different types of foods harvested (column 1, lines 13-26 and column 9, lines 6-12).

11. Claims 30-33, as may best be understood, are rejected under 35 U.S.C. 103(a)

as being unpatentable over Hays in view of U.S. Patent No. 4,661,917 to Haze et al.

As noted above, the invention of Hays teaches many of the features of the claimed invention and while the invention of Hays does teach sorting a plurality of articles into batches using an allocation means (Hays; column 5, lines 1-13) so that the plural articles in each batch have an approximately uniform size or weight (Hays; column 3, lines 30-33 and column 7, lines 3-7), Hays does not specify sorting different kinds of articles contemporaneously or sequentially.

Haze teaches a mixing combinatorial counting and weighting method and apparatus therefore wherein different kinds of articles are allocated into batches (column 1, lines 14-22) in order to maintain a weight of the batches within a predetermined range (column 1, lines 40-47) wherein the different kinds of articles are allocated into batches sequentially (i.e. one article at a time from each supply unit) (column 3, lines 12-18) as well as contemporaneously (i.e. a plurality of kinds of articles supplied to the overall mixture at a time) (column 3, lines 12-18) with at least two types of articles being allocated to each batch (column 1, lines 14-22) and wherein the different types of articles are allocated to the different batches with different delivery sequences (i.e. each article is allocated with a different supply unit) (column 3, lines 12-18 and Figure 1).

It would have been obvious to one having ordinary skill in the art to modify the invention of Hays to specify sorting different kinds of articles contemporaneously and sequentially, as taught by Haze, because Haze suggests that there is a strong demand for automation of the mixing and weighing operation when dealing with

goods of which there is a larger variety, to raise efficiency and accuracy while reducing costs, (column 1, lines 23-37) and therefore the combination would have aided the art by providing the sorting method of Hays in a product environment using the particular sorting to carry out such mixing as well as improved the art of vegetable and fruit batching by incorporating the ability to provide mixed items.

Response to Arguments

12. Applicant's arguments with respect to claims 11-16 and 18-41 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure:

U.S. Patent No. 4,428,179 to Jordan et al. teaches a chicken weighing apparatus.

U.S. Patent No. 4,482,061 to Leverett teaches an apparatus and process for sorting articles.

U.S. Patent No. 4,397,364 to Hirano teaches a combination weighting machine.

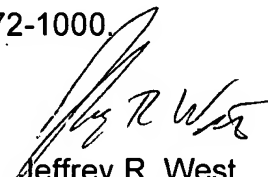
U.S. Patent No. 4,157,738 to Nishiguchi et al. teaches a method for counting the number of articles using a weighing machine.

U.S. Patent No. 4,733,363 to Yamada et al. teaches a control system for combinatorial weighing or counting apparatus.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. West whose telephone number is (571)272-2226. The examiner can normally be reached on Monday through Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeffrey R. West
Examiner – AU 2857

November 27, 2006